

CLEAN COPY OF AMENDED PARAGRAPH [0021]

[0021] If the EPIDs are defined on a per-consumer basis, the EPIDs are only required to uniquely identify an action with respect to other actions defined by the consumer (101). Accordingly, in this embodiment, the data obtained from the probes (112, 114) is typically stored in a per-consumer buffer. If the tracing framework (106) is implemented on a multiprocessor system, then the data obtained from the probes (112, 114) is typically stored in a per-consumer-per CPU buffer. Alternatively, if the EPIDs are defined on a per-system basis, the tracing framework (106) typically includes functionality to uniquely define each action for each consumer such that each action, regardless of the consumer (101) with which it is associated, may be uniquely identified within the system.

CLEAN COPY OF AMENDED PARAGRAPH [0031]

[0031] If the current offset plus the size of the data set is not less than the size of the buffer (116), then the buffer (116) is marked as wrapped (Step 408) and the buffer space between the current offset and the limit of the buffer (116) is invalidated (Step 410). The current offset and the wrapped offset are subsequently set to zero (Step 412). The tracing framework (106) then proceeds to determine whether the buffer (116) has been marked as wrapped (Step 402). In this particular case, since the buffer (116) was marked as wrapped in Step 408, the tracing framework (106) proceeds to determine if the current offset plus the size of the data set to be entered into the buffer (116) is less than the wrapped offset (Step 414). If the current offset plus the size of the data set to be entered into the buffer (116) is less than the wrapped offset, then the tracing framework (106) proceeds to Step 404 described above.

CLEAN COPY OF AMENDED PARAGRAPH [0038]

[0038] Figure 5C shows an example of a buffer in accordance with one embodiment of the invention. Specifically, Figure 5C shows the state of the buffer once Data Set F (516) has been stored in the buffer (500). In this particular embodiment, the storage of Data Set F (516) in the buffer (500) resulted in Data Set A (506), Data Set B (508), and Data Set C (510) being overwritten. More specifically, only a portion of Data Set C (510) was required to be overwritten in order to store Data Set F (516). The remaining portion of Data Set C (510) not overwritten by Data Set F (516) (*i.e.*, the buffer space (524) between the current offset (502) and the wrapped offset (520)), in this embodiment of the invention, was invalidated.

CLEAN COPY OF AMENDED PARAGRAPH [0043]

[0043] Embodiments of the invention provide a means for implementing a ring buffer scheme in arbitrary-action tracing frameworks which have variable length records. Further, embodiments of the invention provide a means to efficiently store data by separating the metadata from the data obtained from the probes. Further, embodiments of the invention provide a means for reconstructing a sequence of events in an arbitrary-action tracing framework.